

1. An ultraviolet indicating closure comprising:  
a primary support body;  
means for fitting said primary support body and said closure onto a container  
comprising a specific, pre-identified ultraviolet radiation protecting  
product;  
5 at least one ambient surface on said primary support body, said ambient surface  
exposed, at least in part, to ambient conditions and ultraviolet radiation;  
and  
an ultraviolet radiation indicator integrally formed within at least a portion of said  
10 ambient surface and comprising a first, base color, said ultraviolet  
radiation indicator comprising a photo-chromic makeup that induces a  
single color change within said ultraviolet radiation indicator to a second,  
indicating color based upon breach of a pre-determined, incorporated  
ultraviolet radiation intensity threshold by said ultraviolet radiation  
15 incident upon said ambient surface, said single color change and said  
second, indicating color corresponding to and signaling the  
appropriateness for use of said specific, pre-identified ultraviolet radiation  
protecting product formulated within said container.

20 2. The ultraviolet indicating closure of claim 1, wherein said closure further  
comprises at least one opening formed within said primary support body to allow passage  
of said ultraviolet protecting product from said container.

3. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation intensity threshold is between about 280 nm and 290 nm, and corresponds to at least one of an ultraviolet index between about 1-2 and a sun protection factor of at least 1, and a pre-determined said second, indicating color.

5

4. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation intensity threshold is between about 290 nm and 300 nm, and corresponds to at least one of an ultraviolet index between about 2-3 and a sun protection factor of at least 5, and a pre-determined said second, indicating color.

10

5. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation intensity threshold is between about 300 nm and 310 nm, and corresponds to at least one of an ultraviolet index between about 3-4 and a sun protection factor of at least 10, and a pre-determined said second, indicating color.

15

6. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation intensity threshold is between about 310 nm and 320 nm, and corresponds to at least one of an ultraviolet index between about 4-5 and a sun protection factor of at least 15, and a pre-determined said second, indicating color.

20

7. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation intensity threshold is between about 320 nm and 330 nm, and corresponds to at least one

of an ultraviolet index between about 5-6 and a sun protection factor of at least 30, and a pre-determined said second, indicating color.

8. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation  
5 intensity threshold is between about 330 nm and 340 nm, and corresponds to at least one of an ultraviolet index between about 6-7 and a sun protection factor of at least 30, and a pre-determined said second, indicating color.

9. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation  
10 intensity threshold is between about 340 nm and 350 nm, and corresponds to at least one of an ultraviolet index between about 7-8 and a sun protection factor of at least 45, and a pre-determined said second, indicating color.

10. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation  
15 intensity threshold is between about 350 nm and 360 nm, and corresponds to at least one of an ultraviolet index between about 8-9 and a sun protection factor of at least 45, and a pre-determined said second, indicating color.

11. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation  
20 intensity threshold is between about 360 nm and 370 nm, and corresponds to at least one of an ultraviolet index between about 9-10 and a sun protection factor of at least 50, and a pre-determined said second, indicating color.

12. The ultraviolet indicating closure of claim 1, wherein said ultraviolet radiation intensity threshold is between about 370 nm and 400 nm, and corresponds to at least one of an ultraviolet index of at least 10 and a sun protection factor of at least 50, and a predetermined said second, indicating color.

5

13. The ultraviolet indicating closure of claim 1, wherein said means for fitting said closure onto a container comprises an attachment means selected from the group consisting of an interference fit assembly, a screw-on assembly, a snap-on assembly, and others.

10

14. The ultraviolet indicating closure of claim 1, wherein said closure is selected from the group consisting of a lid, a cap, a flip-top assembly, a twist-top, a snap-up assembly, a teetered assembly, and others.

15

15. An ultraviolet indicating closure comprising:

a primary support body fittable onto a container;

means for dispensing from said container a specific, pre-identified ultraviolet radiation protecting product; and

5 at least one ambient surface on said primary support body that is exposed to ambient conditions and ultraviolet radiation, said ambient surface comprising a photo-chromic composition that induces a single color change within said ambient surface to a second, indicating color based upon breach of a pre-determined, incorporated ultraviolet radiation intensity threshold by said ultraviolet radiation incident upon said ambient surface, said single color change and said second, indicating color corresponding to and signaling the appropriateness for use of said specific, 10 pre-identified ultraviolet radiation protecting product.

15

16. An apparatus for housing and dispensing an ultraviolet radiation protection product, said apparatus comprising:

5                   a container for receiving and storing a specific, pre-determined ultraviolet radiation protection product; and

10                  a closure fittable onto said container to enable selective dispensing of said ultraviolet radiation protection product from said container, said closure comprising:

15                  at least one ambient surface that is exposed, at least in part, to ambient conditions and ultraviolet radiation; and

20                  an ultraviolet radiation indicator integrally formed within said ambient surface and comprising a first, base color, said ultraviolet radiation indicator comprising a photo-chromic makeup that induces a single color change within said ultraviolet radiation indicator to a second, indicating color based upon breach of a pre-determined, incorporated ultraviolet radiation intensity threshold by said ultraviolet radiation incident upon said ambient surface, said single color change and said second, indicating color corresponding to and signaling the appropriateness for use of said specific, pre-identified ultraviolet radiation protecting product formulated within said container.

17. A sun protection product comprising:

    a container;

    an closure fittable onto said container;

    at least one ambient surface on said closure, said ambient surface comprising an

5           ultraviolet radiation indicator integrally formed within at least a portion of  
          said ambient surface, said ultraviolet radiation indicator comprising:

    a first, base color present when ultraviolet radiation incident upon said  
          ambient surface comprises an intensity below a pre-determined,  
          ultraviolet radiation intensity threshold;

10           a second, radiation indicating color induced when said ultraviolet radiation  
          incident upon said ambient surface comprises an intensity that  
          breaches said pre-determined ultraviolet radiation intensity  
          threshold;

    a photo-chromatic makeup specifically designed to provide and induce a  
          single color change of said ultraviolet indicator from said first,  
          base color to said second, radiation indicating color according to  
          the intensity of said ultraviolet radiation; and

15           a specific, pre-determined ultraviolet radiation protection composition stored  
          within said container that corresponds to said pre-determined ultraviolet  
          radiation intensity threshold.

20

18. A method for indicating an appropriate ultraviolet radiation protection composition for use based on a present ambient condition, said method comprising the steps of:

5 filling a container with a specific, pre-determined ultraviolet radiation protection product;

fitting a closure device on said container to manage storing and dispensing of said ultraviolet radiation protection product, said closure comprising:

at least one ambient surface;

a photo-chromatic makeup integrally formed within said ambient surface;

10 inducing a single color change within said ambient surface from a first, base color to a second, radiation indicating color, said second, indicating color corresponding to a specific amount and intensity of ultraviolet radiation; and

correlating said specific, pre-determined ultraviolet radiation protection product  
15 with said second, indicating color to ensure appropriateness of use.